December 14, 2009 1:10:30 PM

Item ID:

D205-634-041

Accept

Setup Start

Stop



Revision ID:

Item Name:

Replacement Skidtube

Start Date:

14/12/2009 **Required Date: 21/12/2009** Start Oty: 1.00

Leg'd Qty: 1.00



Cest Item ID: Customer:

· #

Reference:

Approvals:

Date:

Start Run

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/ Work Center ID Operation Description

Set Up/ Run Hours Draw Number Draw Plan Rev. Code

Accept Qty

Reject Qty

Stamp

Draw Nbr

Revision Nbr

D2580

100

Rev D

DOCUMENT CONTROL

Memo

0.00

0.00

Document Control

Photocopy D205-634 bluefile & type labels per PPP D205-634-041 CHG002

810/01/15

110

CNC Bend 1

CNC Delta 100 Bender

BENDING MACHINE - SKIDTUBES

Memo

0.00

0.00

1-Bend as per program D2580.C on CNC Bender and Folio FT009

2-Cut tubes as per Dwg. D2580

1 40/12/17

1 09-12-14

Dart	Aer	osp	ac	e L	td

W/O:		WORK ORDER CHANGES		By Date Qty Approval Chief Eng / Prod Mgr			
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Chief Eng /	Approval QC Inspector
		· .					
			t				
Part No		PAP #- Fault Category: NC	·P· Vo	No DO	١	Date:	J

Part No:	PAR #:	Fault Category:	NCR: Yes No DQA:	Date:
	Resolution:	Disposition:	QA: N/C Closed:	Date:
NCR:		WORK ORDER NON-CO	NFORMANCE (NCR)	

NCH:		•		DETENDIT CONTONINATION	3L (11311)			
		Description of NC		Corrective Action Section E	3	Verification	Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section, Ç	Chief Eng	QC Inspector
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		. •						
					·			

Work Order ID 54584



Page 2

December 14, 2009 1:10:30 PM

Required Date: 21/12/2009

Item ID:

D205-634-041

Accept



Setup Start

Stop



Revision ID:

Item Name:

Replacement Skidtube

Start Date:

14/12/2009

Start Qty: -1.00

Req'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

QC:

Date: Date:

Tooling: SPC (Y/N):

0.00

0.00

Date:

Date:

Run

Start

Stop



Sequence ID/ Work Center ID

Operation Description Set Up/ **Run Hours** Draw Number

Draw Plan Rev. Code

Accept Qty

Reject Qty

Reject Number Stamp

- ANM 9-12-30

120

Skidtubes

Skidtubes

Memo

1- Deburr ends

- 2- C'sink holes as per dwg without cutting fluid
- 3- Prepare tube for welding, remove alodine as required.
- 4- Scribe batch number insied aft end of tube.

130

QC5- Inspect part completeness to step on W/O

0.00



Memo

0.00

BB 10/01/04

Quality Control

DATE STEP	PRO	OCEDURE CHAN	IGE	Ву	Date Qty	Approval	A
					Date Qty	Chief Eng / Prod Mgr	Approva QC Inspecto
Part No: PAR #:		Fault Categ	ory:	_ NCR: Yes	No DQA : Date :		
Resol	lution:	Disposition	:	_ QA: N/C C	losed:	Date: _	
NCR:	,	WORK ORDE	R NON-CONFORMA	NCE (NC	R)		
DATE 0	Description of NC		Corrective Action Secti		Verification	Approval	Approva
DATE STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign Date	& Section C	Chief Eng	QC Inspect
	3						
			2				

Work Order ID 54584



December 14, 2009 1:10:30 PM

Item ID: D205-634-041

Required Date: 21/12/2009

Accept



Setup Start

Stop



Revision ID:

Item Name: Replacement Skidtube

Start Date:

14/12/2009

Start Otv: 1.00

Req'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

Process Plan: Approvals:

Date:

Tooling:

Date:

Start

Run

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/ Work Center ID

140

Skidtubes

Skidtubes

Operation Description Set Up/ **Run Hours** Draw Number Draw Plan Rev. Code Accept **Qty**

Reject Reject Qty Number

Insp. Stamp

Memo

0.00

0.00

1-Weld step D2576 as per Dwg. D2580 and QSI 004 A/RESS Aluminum Rod

BE 10/01/04

2-Prep per QSI 005 and weld crossbolt spacers D2579 as per Dwg. D2580, QSI

For D2579 spacers, weld one side, pass 3/8" drill, weld other side, pass 3/8" drill m112860 A/R□□□ Aluminum Rod

8-Grind welds as per Dwg D2580 Grind flush ridge made from bending

4-Drill holes for wearplates using DT 8217 & DT8937 Open holes to 19/64", adjust stopper not to hit web.Deburr

5-Counterbore crossbolt spacers to 7/16" ID x 1.0" deep as per Dwg D2580. Deburr holes

am 10,01.08



6-Drill pilot holes for aft cap using DT 8215Open holes to 0.208". Deburr

7-Drill pilot holes for Towring using DT8091, open to .640" and Deburr

Dart Aerospace Ltd W/O: **WORK ORDER CHANGES Approval Approval STEP PROCEDURE CHANGE** DATE Ву Date Chief Eng / Qty QC Inspector Prod Mgr Part No: ______ PAR #: ____ Fault Category: _____ NCR: Yes No DQA: ____ Date: ____ Resolution: _____ Disposition: ____ QA: N/C Closed: ____ Date: ____ WORK ORDER NON-CONFORMANCE (NCR) NCR: **Corrective Action** Section B **Description of NC** Verification **Approval Approval** DATE **STEP** Sign & Initial **Action Description** Section A QC Inspector Section C Chief Eng Chief Eng Date Chief Eng

December 14, 2009 1:10:30 PM

Item ID:

D205-634-041

Accept



Setup Start

Stop



Revision ID:

Item Name:

Replacement Skidtube

Start Date: 14/12/2009 **Required Date: 21/12/2009** Start Qty: 1.00

Req'd Qty: 1.00

Cust Item ID:

Customer:

Draw

Number

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Start

Run



QC:

Date:

SPC (Y/N):

Set Up/

Run Hours

Date:

Draw

Rev.

Stop

Reject

Qty

Number Stamp

Reject

Sequence ID/ Work Center ID

150

Operation Description

QC10- Inspect visual per QSI004- ground welds

Memo

Accept

Qty

Plan

Code

Quality Control

160



Quality Control

QC5- Inspect part completeness to step on W/O

0.00

0.00





HandFinish

Hand Finishing

Pressure Wash per QSI005 4.3

Memo

Memo

Il 10/0(14

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W/O:			WORK ORDER O	CHANGES				
DATE	STEP		PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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								<u> </u>
Part No	:	PAR #: _	Fault Category:	NCR: Yes	s No DQ	A:	Date: _	
	P	esolution:	Disposition:	OA: N/C	Closed:		Date:	

NCR: WORK ORDER NON-CONFORMANCE (NCR) Corrective Action Section B Varieties de la lacelle de lacelle						
Verification	Ammyovol	Ammental				
Section C	Approval Chief Eng	Approval QC Inspector				
	:					

Work Order ID 54584

December 14, 2009 1:10:30 PM

Required Date: 21/12/2009

Item ID:

D205-634-041

Accept



Setup Start

Stop



Revision ID:

Item Name:

Replacement Skidtube

Start Date:

14/12/2009

Start Oty: 1.00

Req'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

QC:

Date:

Tooling:

SPC (Y/N):

Set Up/

0.00

___ Date: Date:

Start Run

Stop

Sequence ID/

Work Center ID

180

Powdercoat

Powder Coating

Operation Description

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

M113170

Date:

Memo

START TIME: OVEN TEMPERATURE:

Run Hours

Number

Draw Rev.

Plan Code

Accept Qty

Reject Qty

Reject Number Stamp

FINISH TIME:

10/01/12

190

QC

Quality Control

OC3- Inspect Part Finish

Memo

0.00

0.00

pk 10-01-13 D.

Dart Aerospace

Dart Aeı	rospace	Ltd							
W/O:			W	ORK ORDER CHANGE	S		· · · · · · · · · · · · · · · · · · ·		
DATE	STEP	PRO	OCEDURE CHA	ANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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							ļ		
Part No	•	PAR #:	Fault Cat	egory:	NCR: Yes	No DQ	A :	Date: _	
	R	esolution:	Dispositi	on:	QA: N/C Clo	sed:		Date: _	
NCR:			WORK ORE	DER NON-CONFORMA	NCE (NCR))			
DATE	STEP	Description of NC			n B	Verification		Approval	Approval
DATE	SIEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Sect	Section C	Chief Eng	QC Inspector
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-									
	 								

Page 6

Item ID: **Revision ID:**

D205-634-041

Replacement Skidtube

Accept



Setup Start

Stop

Item Name: **Start Date:**

14/12/2009

Start Qty: 1.00

Req'd Qty: 1.00

Customer:

Cust Item ID:

Reference:

Approvals:

Required 5ate: 21/12/2009

Process Plan:

Date:

Tooling:

Date:

Run

Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/ Work Center ID **Operation** Description Set Up/ **Run Hours** Draw Number Draw Plan Rev. Code

Accept Qty

Reject Qty

Reject Number Stamp

200

HandFinish Hand Finishing

Memo

0.00

0.00

1-Install inserts & weamlates & Gaskets as per Dwg. D2580. Use a drop of

Sikaflex on insert holes before installing wearpla A/R □□□ Sikaflex-291

Sikaflex expire date:

2-Coat D2594-3 O' rings with Petroleum Jelly and install on D2594-1 plugs as per Dwg D2580

3-Inspect for foreign object per QSI 024

4-Install 2855 Aft Cap as per Dwg D2580 and seal Fwd Step & Aft Cap with

Sikaflex. Clean excess adhesive

A/R 🗆 🗆 Sikaflex-291

Sikaflex expire date:

5-Wing Walk as per Dwg D2580 and QSI 005 4.4

Batch: 1/2 900

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Dart Aerospace Ltd	Dart	Aero	ospa	ce l	Ltd
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W/O:			W	ORK ORDER CHANG	ES					
DATE	STEP	PRO	OCEDURE CHA	ANGE		By Date Qty Approval Chief Eng / Prod Mgr			Chief Eng /	Approval QC Inspector
					By Date Qty Chief Eng / Prod Mgr NCR: Yes No DQA: Date: QA: N/C Closed: Date: ONFORMANCE (NCR) Ction Section B					
Part No	:	PAR #:	Fault Cate	egory:	_ NCR:	: Yes N	o DQ	A:	Date: _	
	R	esolution:	Disposition	on:	QA: I	N/C Clos				
NCR:			WORK ORD	ER NON-CONFORM	ANCE	(NCR)				
DATE	STEP	Description of NC					Verifi	cation	Approval	Approval
DATE	SIEP	Section A	Initial Chief Eng	Action Description Chief Eng						QC Inspector



December 14, 2009 1:10:30 PM

Item ID:

D205-634-041

Accept

Setup Start

Stop



Revision ID:

Item Name:

Replacement Skidtube

Start Date:

14/12/2009

Start Oty: 1.00

Req'd Qty: 1.00



Cust Item ID:

Customer:

Draw

Number

Reference:

Approvals:

Process Plan:

Date: _____

Tooling:

Date:

Start

Run

Accept

Qty

Required Date: 2\\(\frac{1}{2}\)/2009

QC:

SPC (Y/N): Date:

Date: ____

Draw

Rev.

Plan

Code

Stop

Reject

Qty

Insp.

Stamp

Reject

Number

Sequence ID/ Work Center ID

210

Quality Control

Operation Description

QC5- Inspect part completeness to step on W/O

Run Hours

Set Up/

0.00

Inspect Aft Cap, Fwd Step and Wing Walk of work to Current Step Inspect for

Foreign objects per QSI 024

220

Packaging

Packaging

Packaging

Memo

0.00

0.00

Identify and pack for shipping as per PPPD205-634-041

QC21- Final Inspection - Work Order Release

PPP Rev:

230

Memo

Quality Control

0.00

0.00

Dart Aerospace Ltd	Aerospace Lia
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W/O:	1		W	ORK ORDER CHANG	- 5				
DATE	STEP	PRO	ROCEDURE CHANGE			Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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Part No: PAR #:					NCR: Yes No DQA: Date:				
	R	lesolution:	Disposition	on:	_ QA: N/C C	losed:		Date: _	
NCR:			WORK ORD	ER NON-CONFORMA	NCE (NC	R)			
DATE	0750	Description of NC	Description of NC Corrective A			Verifi	cation	Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign Date	& Sect	ion C	Chief Eng	QC Inspecto
				2					

Picklist Print											Page 1
December 14, 2009 1:	10:35 PM										
Work Order ID: 54584	4										- 9
Parent Item: D205	-634-041										1
Parent Item Name: R	eplacement Skidtu	be						s	tart Date: 14/12	2/2009	Required Date: 21/12/2009
Comments:								9	Start Qty: 1.00		Required Qty: 1.00
Component Item ID/ Item Name	Resinacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Ro ∉e Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Status Issued
D2580-1 205 Skidtube bent detail		Manufactured	No			110	Each	7.0000	1.0000		
				Wareho		Loc (<u>Oty</u>	Loc Code			
					ation						
				Main Wain UG	arehouse		4				
	4	B5 46,	47	>	54120 54279		2 7	1) 9-k	2-1	17
		·		Main W	arehouse		Ĺ	W			
				ST			3		_	 	
					53540 54121		2		_		
D2576-3 Step (maching detail)		Manufactured	No			140	Each	156.0000	1.0000		·

Step (maching detail)

<u>Warehouse</u>	Loc Oty	Loc Code	
Location			
Main Warehouse			
ST	156		, ,
43504	8	A L BE 12	01/04
46661	101		, , ,
52215	47		

Dart Aerospace Ltd

W/O:	•		WC	ORK ORDER CHANG	ES				b , 1
DATE	STEP	PRC	CEDURE CHA		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
		·							
						÷.			
E									
Part No: PAR #:			Fault Cate	gory:	_ NCR: Ye	s No DC)A:	Date:	
Resolution:			Disposition: (Closed:		Date: _	
NCR:		1	WORK ORD	ER NON-CONFORMA	ANCE (NO	R)			
DATE	STEP	Description of NC		V			Approval	Approval	
DAIL	SIEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sigr Da	ı&∣ _{Sec}	tion C	Chief Eng	QC Inspector
		;							
				:					

Picklist Print

December 14, 2009 1:10:35 PM

Work Order ID: 54584

Parent Item:

Comments:

D205-634-041

Parent Item Name: Replacement Skidtube



Start Date: 14/12/2009

Required Date: 21/12/2009

Page 2

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status	
D2579		Manufactured	No			140	Each	363.0000	20.0000	· · · · · · · · · · · · · · · · · · ·			

Crossbolt Spacer

<u>Warehouse</u>	Loc Qty	Loc Code			, ,
Location	A	850	4642	20	BE 10/01/09
Main Warehouse		\bigcirc	16 101	200	DE MONO
LG	241				
51525	4				
53780	130				
54543	107				
Main Warehouse					
ST	122				
43988	4				
46434	4				
46956	2				
47797	9			-	
48272	2				
51314	71				
51315	30				
	200 Eac	h 55.0000	1.0000		

Manufactured

Cap

D2855

Warehouse	Loc Qty	Loc Code	
Location			1. 10 20 11
Main Warehouse			by 10-01-14.
FP6 <i>53791</i>	55		
50513	1		
50770	3		
51539	51		

Dart Aer	ospace	Ltd
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W/O:			V	ORK ORDER CHANGE	S					• •
DATE	STEP	PRO	CEDURE CH	IANGE	Ву		Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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								:		
Part No	:	PAR #:	Fault Ca	tegory:	NCR: Ye	s N	o DQA	:	Date:	
			Disposition: QA							
NCR:		V	VORK OR	DER NON-CONFORMA	NCE (NO	CR)				,
DATE	STEP	Description of NC		n B	Verifica			Approval	Approval	
DATE	SIEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sig Da		Section		Chief Eng	QC Inspector
				:						

Picklist Print

December 14, 2009 1:10:35 PM

Work Order ID: 54584

Parent Item:

D205-634-041

Parent Item Name: Replacement Skidtube



Start Date: 14/12/2009

Required Date: 21/12/2009

Start Qty: 1.00

Required Qty: 1.00

Comments:

Component	Item	ID/
Item Name		

Replacement Mfg. Item ID

Purch

Purchased

Purchased

Bin Primary Item Location

No

No

Last Location

Route Seq ID

200

Unit of #Qty on Remaining Measure Hand

Each

Oty To Pick Issued

Date Status Issued

Page 3

AN3-5A

Wanshausa

Loc Qty

Loc Code

2.027.000 2.0000

Bolt

ware	House
<u>L</u>	ocation
Main	Warehou

use ST 100188

105057 15205

110985

2027 188 1835

4 Each

4754

2 /2/10-01-14

AN960JD10L



Washer

Warehouse Location	Loc Qty	Loc Code
Main Warehouse		
ST	5427	
101291	16	
104885	153	
105793	236	
109632	268	

200

5,427.000 2.0000

2/2/10-01-14.

Dart Aerospace Ltd

W/O:			WORK ORDER	CHANGES				
DATE	STEP	PRO	CEDURE CHANGE	В	y Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
						<u> </u>		
Part No	:	PAR #:	Fault Category:	NCR:	Yes No [)QA:	Date: _	
	R	esolution:	Disposition:	QA: N	C Closed:		Date:	

NCR:		WORK ORDER NON-CONFORMANCE (NCR)										
		Description of NC		Corrective Action Section B		Verification	Approval	Approval				
DATE	STEP Description of NC Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Approval Chief Eng	QC Inspector					
						1						
				·								

Picklist Print

December 14, 2009 1:10:35 PM

Work Order ID: 54584

Parent Item:

D205-634-041

Parent Item Name: Replacement Skidtube

Comments:



Start Date: 14/12/2009

Required Date: 21/12/2009

Page 4

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	, e	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty or 3. Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
ALS7-1032-130		Purchased	d	No			200	Each	2,080.000				

Insert

Warehouse	<u>Lo</u>	c Qty	Loc Code	
Location				
Main Warehouse				
ST		2080		
105855		16		
108606		52		
111529		688		
111779 🗸		313		
112772		11		
113238		1000		
	200	Each	1,661.000	50.0000

50 BL 10-01-14.

AN3C4A

BOLT

No Purchased

> Loc Qty Loc Code Warehouse Location Main Warehouse ST 1661 13 112314 12 112720 112724 112829 112991 113121 74 113226 990

> > 66

113359

113422

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W/O:			WORK ORDER CHANGES									
DATE	STEP	PRO	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector					
		•										
	-											
Part No:		PAR #:	Fault Cate	NCR: Yes	No DQ	A :	Date:					
	Resolution:		Dispositio	QA: N/C Closed: Date:								
NCR:		V	ORK ORD	ER NON-CONFORMAN	ICE (NCR)						
DATE	0755	Description of NC		Corrective Action Section		Verific	cation	Approval	Approval			
DATE	STEP	Section A	Initial Action Description Chief Eng Chief Eng		Sign & Date	1	ion C	Chief Eng	QC Inspector			
		·										

December 14, 2009 1:10:35 PM

Work Order ID: 54584

Parent Item:

D205-634-041

Parent Item Name: Replacement Skidtube

Comments:



Start Date: 14/12/2009

Required Date: 21/12/2009

Start Qty: 1.00

Required Qty: 1.00

50 Bt 10-01-14

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin *Primary Item Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaging Qty To Pick	Qty Issued	Date Issued	Status
AN960C10L	·,	Purchased	No		200	Each	500.0000				



washer

NAS 114960332R

Warehouse	<u>Lo</u>	c Oty	Loc Code	
Location				
OFFSHORE 11578				
FG MUDGO		100		
103585		100		
Main Warehouse				
ST		400		
112116		228		
112612		160		
112933		12		
	200	Each	100.0000	1.0000

D3566-13

Manufactured

Gasket	

Warehouse	Loc Qty	Loc Code	
Location			
Main Warehouse			
FP /	98		- bl 10-01-14
51606	15		
53461	83		_ &
Main Warehouse			
ST	2		
45717	1		
50265	1		

Dart Aerospace Ltd

W/O:		WORK ORDER CH	WORK ORDER CHANGES									
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector					
***							, ,					
Part No	:	PAR #: Fault Category:	NCR: Yes	No DQ	A:	Date: _						

	Resolution:		Disposition: QA: N/C		A: N/C Clo	sed:	Date:	
NCR:			WORK ORDE	R NON-CONFORMANO	CE (NCR)			
DATE		Description of NC		Corrective Action Section B	Section B		Annuoval	Approval
	STEP	P Description of NC Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Verification Section C	Approval Chief Eng	Approva QC Inspecto
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Page 6

December 14, 2009 1:10:35 PM

Work Order ID: 54584

Parent Item:

Comments:

D205-634-041

Parent Item Name: Replacement Skidtube

Manufactured

No



Start Date: 14/12/2009

Required Date: 21/12/2009

Start Qty: 1.00

Required Qty: 1.00

Compriment Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary € . Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	(*iy Issued	Date Issued	Status
D3566-5		Manufactured	No			200	Each	26.0000	1.0000			

Gasket

Gasket

Warehouse	Loc	c Qty	Loc Code		
Location					
Main Warehouse					A •
FP /		22			10-01-14.
53804		22			1 10-01 11
Main Warehouse					
ST		4			
36113		1			
46186		i			
47318		1			
51260		1			
	200	Each	22.0000	2.0000	

D3566-1

Loc Qty Loc Code Warehouse Location Main Warehouse 17 3 53790 14 Main Warehouse ST 5 46349 51218

2 Bl 10-01-14.

51259

Dart Aerospace Ltd

W/O:		WORK ORDER CH	WORK ORDER CHANGES									
DATE	STEP	PROCEDURE CHANGE	By Da			Approval Chief Eng / Prod Mgr	Approval QC Inspector					
						•						
Part No		DAR # Fault Category:	NCR: Vac	No DO	۸٠	Date:						

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		1	E (NCR)	R)				
		Description of NC		Corrective Action Section B	Verification	Approval	Approval	
DATE	STEP	Description of NC Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	Approval QC Inspector
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December 14, 2009 1:10:35 PM

Work Order ID: 54584

Parent Item:

D205-634-041

Parent Item Name: Replacement Skidtube



Start Date: 14/12/2009

Required Date: 21/12/2009

Start Oty: 1.00

Required Qty: 1.00

Date

Comments: Component It #1 ID/ Item Name

Replacement Mfg/ Item ID

Purch

Bin Primary Item Location Las Location

Route Seq ID

Unit of

Qty on Measure Hand

Remaining Qty To Pick Issued

Qty

Status Issued

D3564-11

Manufactured

No

200

25.0000 Each

1.0000

Wearshoe

Warehouse	Loc	<u>Otv</u>	Loc Code		
Location					
Main Warehouse					
FP19		23			- Bell and
52125		14			1 BK 10-01-14.
53808		9			
Main Warehouse					
ST		2			
45823		1			
50112		1			
	200	Each	40.0000	1.0000	

D3564-13

Wearshoe

Manufactured

28

28

12 2

10

Warehouse Loc Qty Location

Main Warehouse FP17 51611

ST

Main Warehouse

45409 46495 Loc Code

IBL 10-01-14.

Dart Aerospace Ltd

- a	. Johan									, ,
W/O:			WO	RK ORDER CHANG	ES					
DATE	STEP	PRO	OCEDURE CHAN	Ву		Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
								4		
				·				:		
Part No	:	PAR #:	Fault Categ	jory:	_ NCR: Y	es No	DQA:		Date:	
Resolution:			Disposition	_ QA: N/0	Clos	ed:		Date:		
NCR:			WORK ORDE	ER NON-CONFORMA	ANCE (N	CR)				
DATE	STEP	Description of NC		Corrective Action Secti			Verifica	tion	Approval	Approval
DAIL	JILF	Section A	Initial Chief Eng	Action Description Chief Eng		gn & ate	Section	1 C	Chief Eng	QC Inspector
										<u> </u>
				No.						
1										

December 14, 2009 1:10:35 PM

Work Order ID: 54584

Parent Item:

D205-634-041

Parent Item Name: Replacement Skidtube

Comments:



Start Date: 14/12/2009

Required Date: 21/12/2009

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement ltem ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	**Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Da * Issued	Status
D3564-9		Manufactured	No			200	Each	22.0000	1.0000			

Wearshoe

Warehouse	Loc	Oty	Loc Code		
Location					
Main Warehouse					0 1
FP19		20			16/ 12 01 - V.
53806		20			1 12/18-01-14.
Main Warehouse					,
ST		2			
44659		1			
45825		1			
	200	Each	25.0000	1.0000	

D3564-5

Manufactured

Wearshoe

Warehouse Location	Loc Qty	Loc Code	
OFFSHORE			
FG	2		The state of the s
34806	2		
Main Warehouse			
FP19	21		
51925 53805	1 20		- bf 10-01-14.
Main Warehouse			,
ST	2		
45824	1		
47433	1		

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W/O:			WORK ORDER (CHANGES				
DATE	STEP	F	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
						į.		
Part No) :	PAR #:	Fault Category:	NCR : Ye	s No DQ	A:	_ Date: _	
	R	esolution:	Disposition:	QA: N/C	Closed:		Date: _	

NCR:			WORK ORDE	R NON-CONFORMAN	CE (NCR)			
		Description of NC		Corrective Action Section E	Manifia adia a	Annessal		
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Verification Section C	Approval Chief Eng	Approval QC Inspector

December 14, 2009 1:10:35 PM

Work Order ID: 54584

Parent Item:

D205-634-041

Comments:

Parent Item Name: Replacement Skidtube

Manufactured

No



Start Date: 14/12/2009

Required Date: 21/12/2009

Start Oty: 1.00

Required Qty: 1.00

•	Repl & ement	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route # Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	* Status	
D2594-3	<u> </u>	Manufactured	No			200	Each	498.0000	16.0000			,	



O-Ring, 205 Skidtube

Warehouse	Loc	c Qty	Loc Code	
Location				
Main Warehouse				
FP		27		
51613		27		
Main Warehouse				
ST		471		
52562		471		
	200	Each	281.0000	16.0000

16. BR 10-01-14.

D2594-1

Plug, 205 Skidtube

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
FP 54643	121	
54008	121	
Main Warehouse		
ST	160	
42221	16	
42807	92	
43884	3	
46435	2	
51527	9	
51757	38	

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W/O:		WORK OF	RDER CHANGES				
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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						!	
Part No):	PAR #: Fault Category:	NCR: Y	es No D (QΑ:	Date: _	

Disposition: _____ QA: N/C Closed: _____

Date: _____

NCR:			WORK ORD	ER NON-CONFORMANO	CE (NCR)			
		Description of NC		Corrective Action Section B		Verification	A	A
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Approval Chief Eng	Approval QC Inspector
		·						
•								:

NOTE: Date & initial all entries

Resolution:



					_
	DESIG	* ##	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
I	CHECH	KED	APPROVED	DRAWING NO. REV.	۵
		W		D2580 SHEET 1 OF	3
Ì	DATE			TITLE SCAL	Ē
	07.0	2.27		205 SKIDTUBE ASSEMBLY	s
	Α		96.09.16	NEW ISSUE	
	В		96.12.02	AS MANUFACTURED	
	С		98.08.26	REDRAWN, INCLUDED DEO 9094/9097	
	D		07.02.27	CHANGE TO SS WEARPLATES AND GASKETS, INCLUDE DEO 9124/9183	



QTY -041	QTY -045	Part Number	Description
X		D2580-041	SKIDTUBE ASSEMBLY
	Х	D2580-045	SKIDTUBE ASSEMBLY
1	1	D2500-1-190	EXTRUSION
1	1	D2576-3	STEP
20	24	D2579	CROSS BOLT SPACER
16	16	D2594-1	PLUG
16	16	D2594-3	O-RING
1	1	D2596	205 WEB
1	1	D2855	AFT CAP
1 ,	1	D3564-5	WEARSHOE
1	1	D3564-9	WEARSHOE
1	1	D3564-11	WEARSHOE
1	1	D3564-13	WEARSHOE
2	2	D3566-1	GASKET
1	1	D3566-5	GASKET
. 1	1	D3566-13	GASKET
50	50	ALS7-1032-130	INSERT
·		or AKS7-1032-130	
ľ	,	or AKS4-1032-130	
		or AELS-1032-130	
50	50	AN3C4A	BOLT
2	2	AN3-5A	BOLT
50	50	AN960C10L	WASHER
2	2	AN960JD10L	WASHER

ENGINE ENGINE UNCONTROL SUBJECT TO AMENOMEN WITHOUT NOTICE WORK ORDER NO. 32/3/4

GENERAL NOTES:

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 2) ALL DIMENSIONS ARE IN INCHES
- 3) INSERT D2596 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE-UP.
- 4) BEND AS A SMOOTH RADIUS STARTING WITH A MAXIMUM CENTERLINE RADIUS OF 60 AND ENDING WITH A MINIMUM RADIUS OF 30. A MAXIMUM REDUCTION OF 0.200 IN DIAMETER IS ALLOWABLE IN THE BENT PORTION OF THE TUBE.
- 5) USE DART DRILL TEMPLATE TD2577-205 TO LOCATE AND DRILL Ø0.297 HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTION D-D (50 PLACES) AFTER FINISH. INSTALL AN3C4A BOLTS AND AN960C10L WASHERS WITH SIKAFLEX-241/-291.
- 6) WELDING TO BE DONE PER DART QSI 004.
- 7) FINISH:

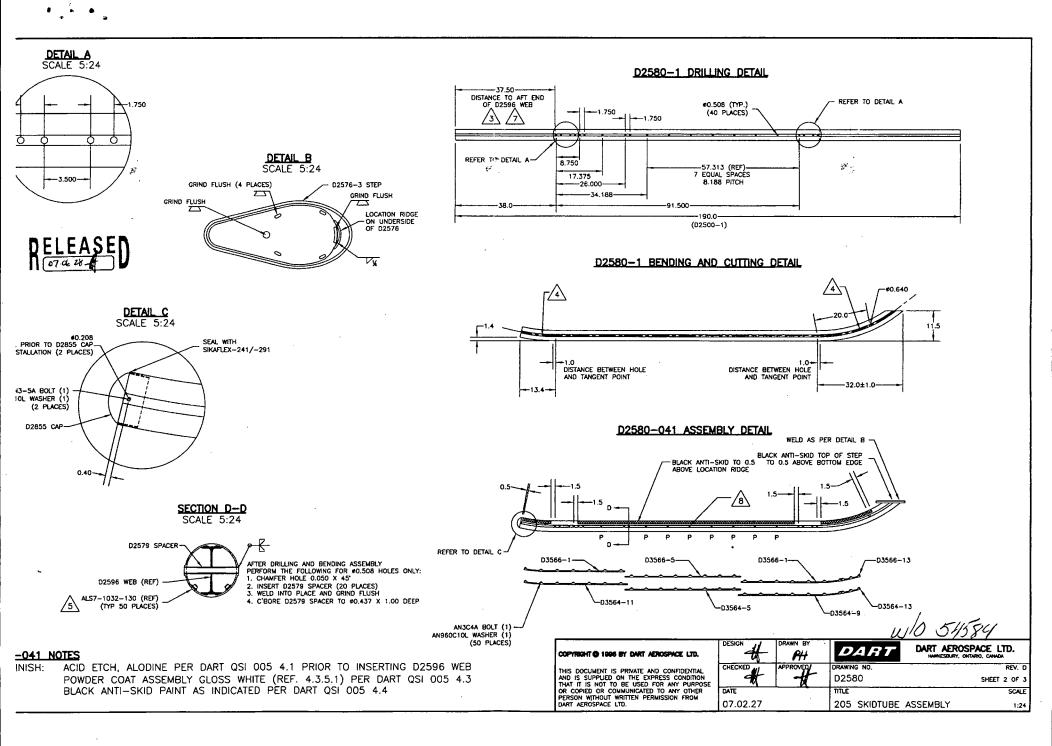
SEE NOTES ON PAGE 2 FOR D2580-041 AND PAGE 3 FOR D2580-045

 INSERT D2594-1 PLUG C/W D2594-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE) AFTER FINISH (16 PLACES).

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Dart Ae	rospace	Ltd							• • •
W/O:			WO	RK ORDER CHANGE	ES			· · · · · · · · · · · · · · · · · · ·	
DATE	STEP	PR	OCEDURE CHAN	NGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
	-								
Part No	:	PAR #:	Fault Cate	gory:	NCR: Yes	No DQ	\ :	_ Date: _	
	Re	esolution:	Disposition	n:	QA: N/C Cld	osed:		Date:	
NCR:			WORK ORDE	ER NON-CONFORMA	NCE (NCR)		1 1 3 3 3 3 3	
		Description of NC		Corrective Action Section	on B	Verific	ation	Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section		Chief Eng	QC Inspector



Dart Aerospace Ltd	erospace Ltd
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W/O:		WORK ORDER CHANGES						
DATE	STEP	PRO	OCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
								!
Part No		PAR #:	Fault Category:	NCR: Yes		1	Date:	<u> </u>

Part No:	PAR #:	Fault Category:	NCR: Yes No DC	QA: Date:
	Resolution:	Disposition:	QA: N/C Closed:	Date:

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE		Description of NC		Corrective Action Section B			Verification Approval		
	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Approval Chief Eng	Approval QC Inspector	
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DETAIL E SCALE 5:24 D2580-1 DRILLING DETAIL -37.50 DISTANCE TO AFT END OF D2596 WEB REFER TO DETAIL E #0.508 (TYP.) 1 750 (40 PLACES) DETAIL F SCALE 5:24 REFER TO DETAIL A-8.750 şi. 7 EQUAL SPACES 17.375 -3.500-8.188 PITCH -26,000 GRIND FLUSH (4 PLACES) 02576-3 STEP -34.188-GRIND FLUSH CRIND FEUSH -91,500-LOCATION RIDGE -190.0-ON UNDERSIDE (D2500-1)D2580-5 BENDING AND CUTTING DETAIL (MAKE FROM D2580-1 DRILLING DETAIL) 5.338 5.915 **DETAIL G** SCALE 5:24 (RFF) 3 630 **≠**0.508 (REF) (8 PLACES) 60 208 SEAL WITH PRIOR TO D2855 CAP SIKAFLEX-241/-291 STALLATION (2 PLACES) DISTANCE BETWEEN HOLE DISTANCE BETWEEN HOLE AND TANGENT POINT AND TANGENT POINT -32.0±1.0-43-5A BOLT (1) SEE NOTE (I) IOL WASHER (1) (2 PLACES) D2855 CAP D2580-045 ASSEMBLY DETAIL WELD AS PER DETAIL F BLACK ANTI-SKID TOP OF STEP TO 0.5 ABOVE BOTTOM EDGE BLACK ANTI-SKID TO 0.5 ABOVE LOCATION RIDGE NO C'BORE NO PLUG REFER TO DETAIL G SECTION H-H SCALE 5:24 NO C'BORE NO PLUG NO C'BORE D2579 SPACER-NO PLUG D3566-1 D3566-5 D3566-1--D3566-13 AFTER DRILLING AND BENDING ASSEMBLY PERFORM THE FOLLOWING FOR \$0.508 HOLES ONLY: CHAMFER HOLE 0.050 X 45" D2596 WEB (REF) 2. INSERT D2579 SPACER (20 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. C'BORE D2579 SPACER TO \$0.437 X 1.00 DEEP ALS7-1032-130 (REF) D3564-11 -D3564-13 (TYP 50 PLACES) -D3564-5 AN3C4A BOLT (1) -AN960C10L WASHER (1) (50 PLACES) DESIGN DART AEROSPACE LTD. -045 NOTES DARI COPYRIGHT @ 1996 BY DART AEROSPACE LTD. PH ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB INISH: CHECKED POWDER COAT ENTIRE ASSEMBLY GREEN (REF. 4.3.5.8) PER DART QSI 005 4.3 THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LITD. D2580 SHEET 3 OF 3 BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4 DATE SCALE IS ACCEPTABLE TO GRIND A RELIEF IN THE D2855 AFT CAP TO PREVENT INTERFERENCE 07.02.27 205 SKIDTUBE ASSEMBLY 1:24 /ITH THE SPACER AT THIS LOCATION

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W/O:		WORK ORDER CHANGES								
DATE	STEP	PROCEDURE C	HANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector		
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Part No	:	PAR #: Fault C	ategory: N	ICR: Yes	No DQ	A :	Date: _			

Resolution: _____ Disposition: _____ QA: N/C Closed: ____ Date: ____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)								
DATE		Description of NC	Corrective Action Section B			Varification	A	A		
	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Verification Section C	Approval Chief Eng	Approval QC Inspector		
		A								
				4.						

NO. aai

AWS D17.1.2001 QUALIFICATION TEST RECORD

Name: Borday Elliott	
Job number: 542020	-
Part number: Daos 634 041	_
Description: 205 skid tube	_
Welding Process: Tig[Mig[]	-
Base materiel: Aluminian	
Current: AC[/ DC[]	_

TEST REQUIREMENTS AND RESULTS

Visual: Penetration: UNACCEPTABLE	pass[了 fail[] pass[了 fail[]
Cracks: Undercut: Pin holes: Overlap (cold lap) Porosity (surface): Coloration:	pass[] fail[] pass[] fail[] pass[] fail[] pass[] fail[] pass[] fail[] pass[] fail[]
Qualifier (ch.) 2 (Ch.) Welder Box (a) Chlot	Date of Test Coupon C9.12.17 Date of Test Coupon C9.12.17

The above named individual is qualified in accordance with AWS D17.1.2001 to weld